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## Nemaha County

### Estimated Economic Impact of Agriculture, Food, and Food Processing Sectors

A total of 18 agriculture, food, and food processing sectors were analyzed to determine their overall contribution to the Nemaha County economy.<sup>1</sup> These 18 sectors have a total direct output of approximately \$632 million and support 1,661.8 jobs in Nemaha County. Running the model for all 18 sectors simultaneously produces the following results:

#### Agriculture Contribution in Nemaha County

Impact Type <sup>2</sup>	Employment	% of Total Employment	Total Value Added <sup>3</sup>	% of Gross Regional Product <sup>4</sup>	Output <sup>5</sup>	% of Gross Regional Product
Direct Effect	1,661.8	24%	\$222,260,177	44%	\$631,902,360	126%
Indirect Effect	413.7	6%	\$30,927,929	6%	\$60,561,139	12%
Induced Effect	388.0	6%	\$23,856,638	5%	\$44,478,859	9%
Total Effect	2,463.5	35%	\$277,044,743	55%	\$736,942,357	147%

As shown in the above table, agriculture, food, and food processing supports 2,463.5 jobs, or 35% of the entire workforce in the county. These industries provide a total economic contribution of approximately \$737 million, roughly 147% of Gross Region Product (GRP). As noted below in the calculation of Gross Regional Product, imports and institutional sales are subtracted. Therefore, counties that import a relatively large amount of goods and services will have a reduced GRP which may lead to agricultural output being greater than GRP.

Another metric used to calculate the importance of sectors in an economy is their value added as a percentage of GRP. Total value added by the 18 agriculture, food, and food processing sectors is approximately \$277 million, or 55% of the GRP. This indicates that personal income, business income, and taxes generated by these sectors account for 55% of the total economy.

The following tables document the overall summary numbers of the model, top industries affected by employment and output, and a listing of all industries that were analyzed.

<sup>1</sup> Article on building a contribution analysis in IMPLAN that avoids double counting:  
[https://implan.com/index.php?option=com\\_content&view=category&id=19](https://implan.com/index.php?option=com_content&view=category&id=19)

<sup>2</sup> Direct, indirect, and induced effects sum together to estimate the total economic contribution in the state. **Direct effects** capture the contribution from agricultural and food products. **Indirect effects** capture the economic benefit from farms and agricultural businesses purchasing inputs from supporting industries within the state. **Induced effects** capture the benefits created when employees of farms, agricultural businesses, and the supporting industries spend their wages on goods and services within the state.

<sup>3</sup> Value Added = Labor Income + Indirect Business Taxes + Other Property Type Income

<sup>4</sup> GRP = Final Demand of Households + Governments Expenditures + Capital + Exports - Imports - Institutional Sales

<sup>5</sup> Output = Intermediate Inputs + Value Added

In the top ten by employment, Animal production, except cattle and poultry and eggs is the top employer in the agriculture industry with 523.2 employees. This table also shows the amount of jobs that are created by the agriculture industry in Nemaha County.

#### Top 10 Industries Affected by Employment

Sector Description:	Total Employment	Total Output
Animal production, except cattle and poultry and eggs.....	523.2	\$62,701,959
Food product machinery manufacturing.....	272.1	\$76,894,734
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming .....	180.4	\$55,308,401
Farm machinery and equipment manufacturing.....	168.8	\$103,874,592
Wholesale trade.....	128.6	\$26,430,958
Dog and cat food manufacturing .....	107.4	\$143,728,771
Dairy cattle and milk production.....	104.7	\$23,062,750
Grain farming .....	103.2	\$42,737,535
All other crop farming.....	90.5	\$13,588,017
Truck transportation.....	61.8	\$9,006,620

The Dog and cat food manufacturing industry directly contributes approximately \$144 million to Nemaha County's economy. This table also shows how much revenue is generated in other industries by having a strong agriculture industry.

#### Top 10 Industries Affected by Output

Sector Description:	Total Employment	Total Output
Dog and cat food manufacturing .....	107.4	\$143,728,771
Farm machinery and equipment manufacturing.....	168.8	\$103,874,592
Food product machinery manufacturing.....	272.1	\$76,894,734
Animal production, except cattle and poultry and eggs.....	523.2	\$62,701,959
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming .....	180.4	\$55,308,401
Oilseed farming.....	19.0	\$48,597,218
Other animal food manufacturing.....	27.6	\$45,719,060
Grain farming .....	103.2	\$42,737,535
Wholesale trade.....	128.6	\$26,430,958
Dairy cattle and milk production.....	104.7	\$23,062,750

Below is a summary of all agriculture data with employment levels and output level. These values can tell how many jobs are represented by each agriculture sector and the output they contributed to Nemaha County's economy.

[illegible]

All 105 counties in Kansas have IMPLAN models with an agriculture contribution summary. These values do not factor in the retail environment of food sales. Food retail is important, but in order to provide the most accurate picture of what production agricultural and processing contributes to Kansas, the retail sector was omitted.